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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* JAN MAYLE, KEN HOFFMAN,  
STEVEN JAY SHAW, and P. HOWARD EDELSTEIN

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Appeal 2020-001704  
Application 15/466,441  
Technology Center 3600

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Before ANTON W. FETTING, JOSEPH A. FISCHETTI, and  
BIBHU R. MOHANTY, *Administrative Patent Judges*.

MOHANTY, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>1</sup> appeals from the Examiner's decision to reject claims 1–13, 16, 26, and 27. We have jurisdiction under 35 U.S.C. § 6(b).

SUMMARY OF THE DECISION

We AFFIRM.

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<sup>1</sup> We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as BondDesk Group LLC. (Appeal Br. 2).

### CLAIMED SUBJECT MATTER

The Appellant's claimed invention relates to a system for providing price evaluation on fixed income securities in odd-lot trades (Spec., para. 2). Claim 1, reproduced below with the italics added, is representative of the subject matter on appeal.

1. A system for graphically providing odd lot pricing evaluation of a fixed-income security, the system comprising one or more processors and a memory storing one or more programs that, when executed by the one or more processors, cause the one or more processors to perform instructions comprising:
  - receiving, from a user device, a quote inputted by a user into a user interface displayed on the user device, wherein the quote is associated with an odd lot transaction or a potential transaction of a fixed-income security and the quote comprises a quoted price and a quoted quantity;*
  - in respond to receiving the quote, searching a database of Odd Lot Pricing (OLP) ranges to select an OLP range associated with the quoted quantity;*
  - comparing the quoted price against the OLP range to determine a result indicating whether to verify the quote;*
  - in response to comparing the quoted price against the OLP range, transmitting the result to the user device; and*
  - causing the user device to:*
    - display, in the user interface, an icon indicating whether the quote is verified with respect to the OLP range, and*
    - upon receiving a selection from the user of the icon, display a graphical representation showing a range of prices, wherein the graphical representation includes a first graphical indicator representing the OLP range and a second graphical indicator representing the quoted price in association with the first graphical indicator.*

### THE REJECTION

The following rejection is before us for review:

Claims 1–13, 16, 26, and 27 are rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

### FINDINGS OF FACT

We have determined that the findings of fact in the Analysis section below are supported at least by a preponderance of the evidence.<sup>2</sup>

### ANALYSIS

#### *Rejection under 35 U.S.C. § 101*

The Appellant argues that the rejection of claim 1 is improper because the claim is not directed to an abstract idea (Appeal Br. 4–7; Reply Br. 2–5). The Appellant also argues that the claim is integrated into a practical application (Appeal Br. 7–8; Reply Br. 5–6). The Appellant argues further that the claim is “significantly more” than the alleged abstract idea (Appeal Br. 8–11).

In contrast, the Examiner has determined that the rejection of record is proper (Final Act. 2–8; Ans. 3–19).

We agree with the Examiner. An invention is patent eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[l]aws of nature, natural

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<sup>2</sup> See *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Patent Office).

phenomena, and abstract ideas” are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is “directed to.” *See Alice*, 573 U.S. at 219 (“On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk.”); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk . . . .”).

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 69 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 192 (1981)); “tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1854))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that “a claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a

mathematical formula.” *Diehr*, 450 U.S. at 187; *see also id.* at 191 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). Having said that, the Supreme Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.” *Id.* (internal citation omitted) (citing *Benson* and *Flook*); *see, e.g., id.* at 187 (“It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”).

In January 2019, the published revised guidance on the application of § 101. *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Guidance”). Under the Guidance, we first look to whether the claim recites:

- (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and
- (2) additional elements that integrate the judicial exception into a practical application, i.e., evaluate whether the claim “appl[ies], rel[ies] on, or use[s] the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception.” (*see* Guidance, 84 Fed. Reg. at 54; *see also* MPEP § 2106.05(a)–(c), (e)–(h)).

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look to whether the claim:

(3) adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or

(4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

*See* Guidance.

If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where “we must examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (citation omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (alterations in original) (quoting *Mayo*, 566 U.S. at 77). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

The Specification at paragraph 2 states that the invention generally relates to providing price evaluation on fixed-income securities in the odd lot market. Here, the Examiner has determined that the claim recites “comparing the quoted price against the OLP [(odd lot pricing)] range to determine a result and verify a quote, and display a graphical representation showing a range of prices” and sets forth an abstract concept (Ans. 8). The Examiner at page 9 of the Answer cites to the claim as falling within a certain methods of organizing human activities and fundamental economic principles. We substantially agree with the Examiner. We determine that the claim sets forth the subject matter in italics above which describes the concept of: [1] “receiving . . . a quote inputted by a user . . . wherein the

quote is associated with an odd lot transaction or a potential transaction of a fixed-income security”; [2] “in respond to receiving the quote, searching a database of Odd Lot Pricing (OLP) ranges to select an OLP range associated with the quoted quantity”; [3] “comparing the quoted price against the OLP range to determine a result indicating whether to verify the quote”; [4] “transmitting the result to the user device”; [5] “display . . . an icon indicating whether the quote is verified with respect to the OLP range”; and [6] “upon receiving a selection from the user of the icon, display a graphical representation showing a range of prices,” which sets forth receiving a quote for an odd lot transaction of a security, determining if the quote is in an odd lot range for verification, and then providing the verification to the user which is a certain method of organizing human activities and a fundamental economic practice and an abstract concept, i.e., a judicial exception. *See Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016) (collecting information, analyzing it, and displaying results from certain results of the collection and analysis was held to be an abstract idea). A method, like the claimed method, “a process that employs mathematical algorithms to manipulate existing information to generate additional information is not patent eligible.” *See Digitech Image Techs, LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014). In *OIP Technologies, Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015), it was held that offer-based price optimization was directed to an abstract idea. In *Chicago Board of Options Exchange v. International Securities Exchange*, 640 F. App’x 986 (Mem) (Fed. Cir. 2016), the Federal Circuit affirmed the determination in three cases (CBM2013-00049, CBM2013-00050, CBM2013-00051) involving trading technologies that



were held to not meet the requirements of 35 U.S.C. § 101. *See also*, 84 Fed. Reg. at 52.

The Appellant at page 4 of the Appeal Brief has also cited to *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016), to show that the claim is not abstract and that the claims in that case were not similar in scope to those here and were in contrast directed to a self-referential data table. The Appellant in the Appeal Brief at page 4 also cites to *Trading Techs. Int'l. v. CQG, Inc.*, No. 2016-1616 (Fed. Cir. Jan. 18, 2017) to show the claim is not abstract but the claim in that case “require[d] a specific, structured graphical user interface paired with a prescribed functionality directly related to the graphical user interface’s structure.” In contrast, the claim at issue here only uses a conventional computer icon and graphical representation method on the user device. In *Trading Techs. Int’l v. IBG, LLC*, 921 F.3d 1084, 1089 (Fed. Cir. 2019), it was held that claims directed to a financial trading method used by a computer were not patent eligible.

We next determine whether the claim recites additional elements in the claim to integrate the judicial exception into a practical application. *See* Guidance, 84 Fed. Reg. at 54–55. The Revised Guidance references the MANUAL OF PATENT EXAMINING PROCEDURE (“MPEP”) §§ 2106.05(a)–(c) and (e)–(h).

Here, the claims do not improve computer functionality, improve another field of technology, utilize a particular machine, or effect a particular physical transformation. Rather, we determine that nothing in the claims imposes a meaningful limit on the judicial exception, such that the claims are more than a drafting effort to monopolize the judicial exception.

For example, in the claim, the additional elements beyond the abstract idea are the recited processors, memory, and user device. The claimed limitations of “receiving,” “searching,” “comparing,” “transmitting,” and “display[ing]” as recited in the claim do not purport to improve the functioning of the computer itself, do not improve the technology or technical field, and do not require a particular machine. Rather, they are performed using generic computer components. Further, the claim as a whole fails to effect any particular transformation of an article to a different state. The recited steps in the claim fail to provide meaningful limitations to limit the judicial exception. In this case, the claim merely uses the claimed computer elements as a tool to perform the abstract idea.

Considering the elements of the claim both individually and as “an ordered combination” the functions performed by the computer system at each step of the process are purely conventional. Each step of the claimed method does no more than require a generic computer to perform a generic computer function. Thus, the claimed elements have not been shown to integrate the judicial exception into a practical application as set forth in the Revised Guidance which references the MANUAL OF PATENT EXAMINING PROCEDURE (“MPEP”) §§ 2106.05(a)–(c) and (e)–(h).

Turning to the second step of the *Alice* and *Mayo* framework, we determine that the claim does not contain an inventive concept sufficient to “transform” the abstract nature of the claim into a patent-eligible application.

Considering the claim both individually and as an ordered combination, the claim fails to add subject matter beyond the judicial exception that is not well-understood, routine, and conventional in the field. Rather, the claim uses well-understood, routine, and conventional activities

previously known in the art and they are recited at a high level of generality. The Specification at paragraphs 89 and 90 for example describes using conventional computer components such as hard disks, computers, and networks in a conventional manner. The claim specifically includes recitations for computers to implement the method but these computer components are all used in a manner that is well-understood, routine, and conventional in the field. Here, the claimed generic computer components which are used to implement the claimed method are well understood, routine, or conventional in the field. The Appellant at page 9 of the Appeal Brief has also cited to *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016), but the claims in that case are distinguished from this case in being directed to rules for lip sync and facial expression animation. Here, the claim has not been shown to be “significantly more” than the abstract idea.

Concerning Appellant’s specific argument at page 10 of the Appeal Brief that “[b]y providing verification of the quote in the form of the icon and the first and second graphical indicators, claims 1 and 27 are directed to non-conventional functionality not present in prior art pricing tools and trading workstations”, the Appellant does not identify, any analogous modification to the routine and conventional functioning of computer technology. At best, the claims appear to use generic computer components, (a user interface displaying icons and graphic indicators) to perform an otherwise abstract concept.

For these above reasons the rejection of claim 1 is sustained. The Appellant has provided the same arguments drawn to the remaining claims which are drawn to similar subject matter and the rejection of these claims is sustained as well.

#### CONCLUSIONS OF LAW

We conclude that Appellant has not shown that the Examiner erred in rejecting claims 1–13, 16, 26, and 27 under 35 U.S.C. § 101.

#### DECISION SUMMARY

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1–13, 16, 26, 27	101	Eligibility	1–13, 16, 26, 27	

#### TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED